

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Saaski et al.
Application No. : 10/809,043
Filed : March 25, 2004
Title : PORTABLE WRIST-WORN PERSONAL ELECTRONIC DEVICE

TC/A.U. : 2833
Examiner : Thanh S. Phan

Confirmation No. : 5787
Docket No. : 187-74
Dated : November 8, 2007

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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SECOND AMENDED APPEAL BRIEF PURSUANT TO 37 C.F.R. §41.37

Sir:

This is an appeal to the Board of Appeals from the Examiner's final rejection of the claims dated September 7, 2006. A timely Notice of Appeal was filed on February 6, 2007. This Amended Appeal Brief is a complete new brief with corrections required by a Notification of Non-Compliant Appeal Brief mailed November 1, 2007, a response to which is due by December 1, 2007.

I. REAL PARTY IN INTEREST

The real party in interest is Polar Electro Oy, Professorintie 5, FIN-90440 Kempele, Finland, the assignee herein.

II. RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known to Appellant or Appellant's legal representative that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

The status of the claims in this application is:

A. Total Number of Claims in Application

Claims in the application are: Claims 1-10.

B. Status of all the claims

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: Claims 1-10.
4. Claims allowed: None.
5. Claims rejected: Claims 1-10.

C. Claims on Appeal

The claims on appeal are: 1-10.

IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the final rejection of the claims dated September 7, 2006.

V. SUMMARY OF THE INVENTION

The invention defined by independent Claim 1, which is shown in Figures 1-4 and described at page 3, paragraph [0012] through page 9, paragraph [0031], is directed to a portable, wrist-worn personal electronic device, which includes a case 4, a wristband structure 8, 9, and an attachment arrangement. The case includes a component space 5, a front side 6, and a reverse side 7. The wristband structure includes a front side and, on the opposite side of the wristband structure, a reverse side. At least one of the front side and the reverse side of the wristband structure is in contact with a user's wrist when the device is worn.

The attachment arrangement includes a positioning structure for mutual positioning of the case and the wristband structure, and a locking arrangement for interlocking the case and the wristband structure. For enabling attachment of the wristband structure 8, 9 to the case 4 from the front side of the case with the reverse side of the wristband structure ahead, each attachment arrangement has a positioning structure that includes positioning means 21, 31 located in the case wall and extending in the direction between the front side 6 and the reverse side 7 of the case. As counterparts of the positioning means belonging to the case, the positioning structure includes positioning counterparts 22, 32 located on the reverse side of the wristband structure, the direction of which corresponds to that of the positioning means belonging to the case structure.

The locking structure includes, on the reverse side of the wristband, a locking projection structure 61, 62 that is an integral part of the wristband. As a counterpart of the

locking projection structure, the case 4 includes a locking counterpart 60 to prevent the wristband from becoming separated from the case.

Locating the positioning counterparts on the reverse side of the wristband structure provides for fast, easy, and reliable attachment of the wristband to the case without exposing the positioning counterparts along an edge, such as the side edges of the wristband, which would make these projections significantly more susceptible to being displaced and/or broken. In addition, placement of the positioning counterparts on the reverse side of the wristband structure enables longitudinal forces applied to the wristband by, for example, expansion of the user's wrist when the device is worn, to be distributed over a greater surface area of the wristband structure, which substantially increases the strength of the attachment arrangement, as disclosed at page 2, paragraph [007] through page 3, paragraph [0010] of the specification.

VI. GROUND OF REJECTION TO BE REVIEWED UPON APPEAL

Whether Claims 1-10 are unpatentable under 35 U.S.C. §102(b) over U.S. Patent No. 6,176,612 to Changnoux (*Changnoux*).

VII. ARGUMENT

Claims 1-10 is a grouping of claims that stands or falls together.

Claims 1-10 are not anticipated under 35 U.S.C. §102(b) by *Changnoux*.

The Examiner rejected Claims 1-10 as being anticipated under 35 U.S.C. §102(b) by *Changnoux*. Specifically, the Examiner states that:

Regarding claims 1 and 10, *Changnoux* discloses a portable, wrist-worn, personal electronic device [a watch] comprising:

a case [not explicitly numbered] including a component space [space in middle part 2 for holding watch internal components], the case comprising a front side and, on the opposite side of the case, a reverse side [the sides are not explicitly numbered], a wristband structure [wristlet 1] for wrist attachment of the case, there being two attachment points between the case and the wristband structure on different edges of the case [figures 4-6], the wristband structure comprising a front side and, on the opposite side of the wristband structure, a reverse side [the sides are not explicitly numbered], at least one of the front side and the reverse side of the wristband structure being in contact with a user's wrist when the device is worn; and an attachment arrangement at both attachment points for attaching the case and the wristband structure to one another, each attachment arrangement comprising a positioning structure [4a and 4d] for mutual positioning of the case and the wristband structure and a locking arrangement [see figures 4-6] for interlocking the case and the wristband structure, wherein for enabling attachment of the wristband to the case from the front side of the case with the reverse side of the wristband structure ahead, each attachment arrangement has a positioning structure that comprises positioning means [2b and 2c] locating in the case wall and extending in the direction between the front side and the reverse side of the case, and as counterparts of the positioning means belonging to the case the positioning structure comprises positioning counterparts [4b and 4c] on the reverse side of the wristband structure, the direction of which positioning counterparts corresponds to that of the positioning means belonging to the case structure, and that in each attachment arrangement the locking structure comprises, on the reverse side of the wristband, a locking projection structure [4a and 4d] that is an integral pad of the wristband, and as a counterpart of said locking projection structure the case comprises a locking counterpart [2a and 2d] to prevent the wristband from becoming apart from the case.

Regarding claim 2, *Changnoux* discloses wherein the locking projection structure [4a and 4d] on the reverse side of the wristband structure extends in the same direction as the positioning counterparts [4b and 4c] on the reverse side of the wristband.

Regarding claim 3, *Changnoux* discloses wherein the locking counterpart comprised by the case and serving as a counterpart of the locking projection structure comprised by the wristband comprises a locking projection space [grooves in 2a and 2d as best illustrated in figures 1 and 3] delimited by the case wall material, to which space the locking projection structure extends.

Regarding claim 4, *Changnoux* discloses wherein the locking counterpart [2a and 2d] comprised by the case comprises a locking means [2e] that is transverse to the locking projection space [grooves in 2a and 2d] for locking in place the locking projection structure [4a and 4d] fitted into the locking projection space [grooves in 2a and 2d] by means of the locking means comprised by the locking projection structure.

Regarding claim 5, *Changnoux* discloses wherein the locking projection structure [4a and 4d] comprised by the wristband is a strainable stem structure, which, when strained, can be fitted into the locking projection space of the locking counterpart comprised by the case [figure 6].

Regarding claim 6, *Changnoux* discloses wherein the locking projection space, delimited by the case wall and comprised by the locking counterpart of the case, for the locking projection structure of the wristband extends in the same direction as the positioning means of the case [best illustrated in figures 1, 2 and 6].

Regarding claim 7, *Changnoux* discloses wherein the positioning means [2b and 2c] belonging to the case structure and extending in the direction between the front and the reverse of the case are recess-like spaces delimited by the case wall [figures 1 and 2].

Regarding claim 8, *Changnoux* discloses wherein the positioning counterparts [4b and 4c] comprised by the wristband structure are stud-like pads.

Regarding claim 9, *Changnoux* discloses wherein there are at least two pairs of positioning means comprised by the case and positioning counterparts of the wristband at each mutual attachment point of the wristband structure and the case, and that these pairs of positioning means/positioning counterparts are on different sides of the longitudinal median line of the device [figure 1; in the figure only one wristband is shown instead of two].

Appellants respectfully traverse the foregoing rejection of Claims 1-10.

Changnoux relates to a device for attaching a wristband to a watchcase, which allows the wristband to be removed without tools and without risking damage to the watchcase or wristband. As shown in Figure 2, projections 4a-d extend from the sides of the wristband and

engage in corresponding grooves 2a-d in the watchcase. As shown in Figures 4-6, projection 4d is first inserted into groove 2a and slid upwardly. Projection 4c is then inserted into groove 2b and the wristband is pulled away from the watch case. This engages projection 4d

Positioning the projections 4a-d along the edge of the wristband, as shown in Figure 2 of *Changnoux*, makes these projections substantially more vulnerable to being bent or broken. It is also clear that placement of the projections 4a-d along the edges of the wristband requires that the wristband retain its shape with little or no deformation in order to maintain a reliable connection between the wristband and case. For example, if a force were applied to the wristband shown in *Changnoux* (directed to the right-hand portion of Figure 2) that resulted in deformation of the wristband, the projections 4a-d could easily be pulled out of their corresponding grooves 2a-d. This would allow the wristband to be separated from the case.

In contrast, locating the positioning counterparts on the reverse side of the wristband structure, as required by Claim 1 of the subject application, provides for the fast, easy, and reliable attachment of the wristband to the case without exposing any positioning counterparts along the edge of the wristband. In addition, placement of the positioning counterparts on the reverse side of the wristband structure as claimed distributes the longitudinal forces that are applied to the wristband (for example, by expansion of the user's wrist when the device is worn) over a greater surface area of the wristband structure, which substantially increases the strength of the attachment.

The Examiner notes at page 5 of the Office Action that Applicant has amended Claim 1 to highlight “at least one of the front side and the reverse side of the wristband structure being in contact with a user’s wrist when the device is worn”, but argues that *Changnoux* discloses these limitations since *Changnoux* teaches that its device is worn by being “strapped” on a user's wrist, and by doing this there must be a certain degree of contact between the band and the user’s wrist. However, the Examiner fails to recognize that the limitation concerning the front and reverse sides of the wristband structure was added to further clarify that portion of the wristband (the reverse side) on which the positioning counterparts are located. Thus, the distinction between this location and the location of the corresponding elements described in *Changnoux* (along the edges) was not addressed by the Examiner.

Stated differently, Applicants are not merely reciting the existence of front and reverse sides of the wristband, but that the positioning counterparts are located on the reverse side, which is either in contact with the user’s wrist or opposing the side which is in contact with the user’s wrist when worn. In contrast, the studs (positioning counterparts) described in *Changnoux* and shown in Figures 2 and 3 are clearly located on the right and left edges of the wristband. This edge position results in the disadvantages discussed above.

The Examiner further argues at page 5 of the Office Action that *Changnoux* teaches “positioning counterparts” by arguing "*Changnoux* is used to merely show that structures 4b&c are countered to those of 2b&c". The Examiner further states that "applicant has not

claimed or examiner considered any specific structural requirements or design of the counterparts and/or other claimed structures limitations but means to so perform as claimed".

As understood, Applicants strongly disagree with this assertion. For example, Claim 1 recites that the positioning counterparts are located on the reverse side of the wristband structure, and that the direction of the positioning counterparts corresponds to that of the positioning means belonging to the case structure. Further, Claim 2 recites that the positioning counterparts extend in the same direction as the locking projection structure on the reverse side of the wristband, Claim 8 recites that the positioning counterparts are stud-like parts, and Claim 9 recites that the pairs of positioning means and positioning counterparts are on different sides of the longitudinal median line of the device. Thus, by his own admission, the Examiner has not considered any of the foregoing limitations defined in the pending claims.

Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference or embodied in a single prior art device or practice. *Minnesota Mining and Manufacturing Company v. Johnson & Johnson Orthopedics, Inc.*, 24 USPQ 2d 1321 (Fed. Cir. 1992). Accordingly, the absence from a reference of any claimed element negates anticipation. *Kloster Speed Steel AB v. Crucible Inc.*, 230 USPQ 81 (Fed. Cir. 1986

The standard for maintaining a proper rejection for anticipation under 35 U.S.C. §102 was also stated by the Federal Circuit in *Mehl/Biophile International Corp. v. Milgram*, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999) as follows:

To anticipate a claim, a reference must disclose every limitation of the claimed invention, either explicitly or inherently (emphasis added.)

See also MPEP 2131:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added).

Accordingly, it is well established in the law that an Examiner must explicitly explain how each and every element of a claim is described in the prior art. No element can simply be ignored.

Claim 1 requires a positioning structure with positioning counterparts located on the reverse side of the wristband structure, which is either in contact with the user's wrist or on that side of the wristband opposite that of the side which is in contact with the user's wrist when the device is worn. As is best shown in Figure 2 of *Changnoux*, the projections 4a-d extend from the sides of the wristband, which are not in contact with the user's wrist when the device is worn. The *Changnoux* specification is entirely silent on placement of these projections on either the front or reverse sides of the wristband. Thus, Claim 1 cannot be said to be anticipated under prevailing Federal Circuit law.

In view of the structural differences between the invention and the art relied upon by the Examiner, the reversal of the Examiner's rejection of the claims is solicited. The §102(b) rejection of independent Claim 1 should therefore be withdrawn.

Inasmuch as Claim 1 is believed to define over the prior art, Claims 2-10, which depend therefrom, are also believed to define over the prior art. Accordingly, the §102 rejection of Claims 2-10 should also be withdrawn.

VIII. CLAIMS APPENDIX

The claims involved in the Appeal are:

1. A portable, wrist-worn, personal electronic device comprising:

a case including a component space, the case comprising a front side and, on the opposite side of the case, a reverse side;

a wristband structure for wrist attachment of the case, there being two attachment points between the case and the wristband structure on different edges of the case, the wristband structure comprising a front side and, on the opposite side of the wristband structure, a reverse side, at least one of the front side and the reverse side of the wristband structure being in contact with a user's wrist when the device is worn; and

an attachment arrangement at both attachment points for attaching the case and the wristband structure to one another, each attachment arrangement comprising a positioning structure for mutual positioning of the case and the wristband structure and a locking arrangement for interlocking the case and the wristband structure, wherein

for enabling attachment of the wristband to the case from the front side of the case with the reverse side of the wristband structure ahead, each attachment arrangement has a positioning structure that comprises positioning means located in the case wall and extending in the direction between the front side and the reverse side of the case, and as counterparts of the positioning means belonging to the case, the positioning structure comprises positioning counterparts located on the reverse side of the wristband structure, the direction of which

positioning counterparts corresponds to that of the positioning means belonging to the case structure, and that in each attachment arrangement the locking structure comprises, on the reverse side of the wristband, a locking projection structure that is an integral part of the wristband, and as a counterpart of said locking projection structure the case comprises a locking counterpart to prevent the wristband from becoming apart from the case.

2. The device of claim 1, wherein the locking projection structure on the reverse side of the wristband structure extends in the same direction as the positioning counterparts on the reverse side of the wristband.

3. The device of claim 1, wherein the locking counterpart comprised by the case and serving as a counterpart of the locking projection structure comprised by the wristband comprises a locking projection space delimited by the case wall material, to which space the locking projection structure extends.

4. The device of claim 1, wherein the locking counterpart comprised by the case comprises a locking means that is transverse to the locking projection space for locking in place the locking projection structure fitted into the locking projection space by means of the locking means comprised by the locking projection structure.

5. The device of claim 1, wherein the locking projection structure comprised by the wristband is a strainable stem structure, which, when strained, can be fitted into the locking projection space of the locking counterpart comprised by the case.

6. The device of claim 1, wherein the locking projection space, delimited by the case wall and comprised by the locking counterpart of the case, for the locking projection structure of the wristband extends in the same direction as the positioning means of the case.

7. The device of claim 1, wherein the positioning means belonging to the case structure and extending in the direction between the front and the reverse of the case are recess-like spaces delimited by the case wall.

8. The device of claim 1, wherein the positioning counterparts comprised by the wristband structure are stud-like parts.

9. The device of claim 1, wherein there are at least two pairs of positioning means comprised by the case and positioning counterparts of the wristband at each mutual attachment point of the wristband structure and the case, and that these pairs of positioning means/positioning counterparts are on different sides of the longitudinal median line of the device.

10. The device of claim 2, wherein the locking counterpart comprised by the case and serving as a counterpart of the locking projection structure comprised by the wristband comprises a locking projection space delimited by the case wall material, to which space the locking projection structure extends.

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IX. EVIDENCE APPENDIX

None

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X. RELATED PROCEEDINGS APPENDIX

None

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In view of the foregoing, it is respectfully submitted the outstanding rejections set forth by the Examiner in the final Office Action of September 7, 2006, be reversed.

Respectfully submitted,

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